



The First Name  
In Digital Audio

A/V SURROUND RECEIVER  
Dolby Digital AC-3 with DTS

# AVR-3600dts

## Dolby Digital, dts and Full Discrete 550 watts Amplifiers

The AVR-3600 offers Dolby Digital AC-3, Pro Logic, DTS, and Surround Simulation in the high quality DDSC-Digital (Dynamic Discrete Surround Circuit-Digital) that is used in DENON's hot-selling, top-of-the-market AVP-8000 A/V preamplifier, the same easy-to-follow icon-based On-Screen Display (OSD), and even the mammoth array of video, S-video, and audio input/output terminals.



Dolby Digital AC-3 and Dolby Pro Logic / DTS Decoding (USA model only) / D-D-S-C-Digital (Dynamic Discrete Surround Circuit - Digital) / Full Discrete 5-channel Equal Power Amplifier / Built-in AC-3 RF Demodulator / Cinema Equalizer

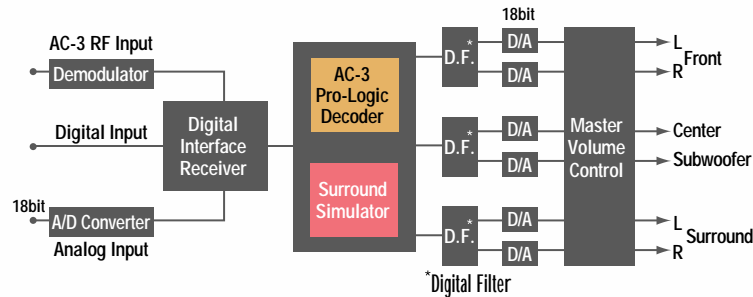




## DDSC-Digital (Dynamic Discrete Surround Circuit-Digital)

Since surround signals are all processed in the digital domain, the AVR-3600 is equipped with a newly-developed, sophisticated, high-performance DSP circuit with "Full Block Floating point" calculations for the Dolby Digital AC-3, Dolby Pro Logic decoder and Surround Simulator. The D/A converters feature high-resolution, multi-bit designs for all the Front L/R, Center, Surround L/R, and Subwoofer channels. This combination of DSP and D/A converters works to bring out the tremendous potential of AC-3 sound. In addition, high resolution A/D converters have been incorporated for the Dolby Pro Logic decoder. The merits of all the latest technologies have been harnessed to reproduce the absolute highest quality in sound possible today.

Dynamic Discrete Surround Circuit-Digital Block Diagram



## Fully Discrete 5-channel Equal Power Amplifier

AVR-3600 offers a full discrete 5-channel power amplifier to support the dynamic performance of the Dolby Digital AC-3 sound signal from Laser Disc or DVD. All channels have an equal power output of 110 watts each (8 ohms, 20Hz - 20kHz, THD 0.05%) and are configured as independent monaural amplifiers. This construction enables the AVR-3600 to produce dynamic realism through its high-current capability and to recreate a nuanced surround sound effect via superior channel separation.

## Powerful, Responsive Power Supply

AVR-3600 incorporates three independent power transformers for each power amplifier, preamplifier and micro-processor to ensure a stable current supply for each block without mutual interference and noise. Furthermore, the transformer of the preamplifier employs separate windings for the audio amplifier, digital circuitry and video circuitry to prevent interference.

## Discrete Construction Chassis and Direct Signal Routing

The interior of the chassis is divided to give separate compartments for the power amplifier, pre-amplifier, video circuit, digital circuit and power supply. This design prevents mutual interference and allows each section to perform at its full potential.

## Dynamic Compression Circuit

This parameter is used when the listener wants to reduce the relative loudness between the soft and loud portions of the sound (dynamic range). The control of the volume range allows for better low-level listening of dynamic sound tracks like action movies.

## Dialog Normalization (On/Off)

This circuit recognizes a "cue" in the Dolby Digital signal that "knows" the average dialog level of that program and adjusts the level of your system so that large changes in volume between programs are avoided. This feature allows all Dolby Digital sound tracks to be reproduced at the same subjective loudness without affecting their dynamic range and prevents "overpowering" the important dialog audio track.

## Rich Selection of Surround Modes

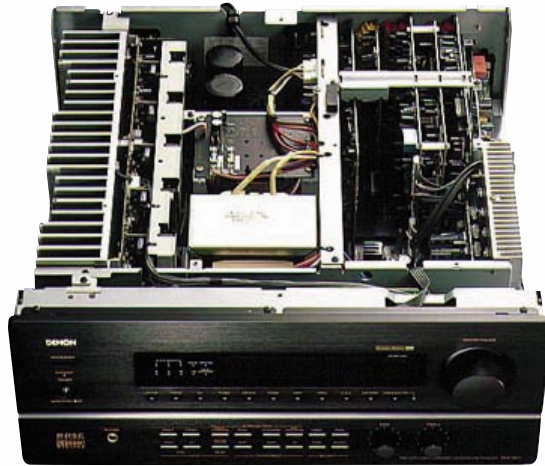
The AVR-3600 offers as many as nine surround sound modes, which is more than enough to satisfy the needs of most home theaters. You can choose from among Dolby AC-3, the three Dolby Pro Logic modes of Normal, Wide, and Phantom, or from seven additional surround modes: 5-Channel Stereo, Classic Concert, Rock Arena, Jazz Club, Super Stadium, Mono and Matrix.

## Cinema Equalizer

This circuit makes the overly bright sounding dialog heard on some movie soundtracks easier to listen to.



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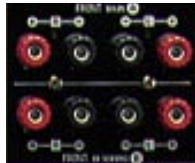


## Versatile Speaker Terminals

### 2 pairs of Front Speaker Terminals for Bi-Wiring

The bi-wiring speaker terminal feature gives you high-quality performance with bi-wiring speaker systems through optimum connecting configurations.

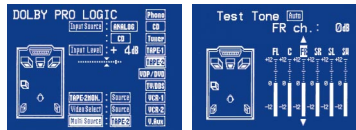
In addition, you can connect two sets of conventional speakers, one for use in the main A/V room and the other in an additional room. The Binding Posts are used for all speaker terminals to ensure secure connections for every type of wire.



### Center Speaker Terminals for Bi-Wiring

## Functions for Easy Operation

### Icon-based On-Screen Display



User-friendly guide  
for making settings

Adjusting the surround  
mode level balance

Personal Memory Plus / Multi Source / Video Select  
Programmable Remote Commander with Easy Recognition Button Layout

## Frequency Synthesis Tuning

40-Station AM/FM Random Preset Memory Tuning / Auto Preset Memory (FM only)

## Other Features

Tone Control Circuit (Front L/R) / REC OUT Select

## Input/Output Terminals For Every A/V System

### Mammoth Array of Input/Output Terminals

#### Audio Inputs

10 Analog Inputs

PHONO, CD, TUNER, VDP/DVD, TV/DBS, VCR-1,  
VCR-2, V-AUX, DAT/TAPE-1, TAPE-2 MONITOR

1 Digital (Optical) Input

OPTICAL

1 Digital (Coaxial) Input

COAXIAL

1 AC-3 RF Input

AC-3RF

#### Audio Outputs

6 Analog PRE OUT Terminals

FRONT L/R, CENTER, SURROUND L/R, SUBWOOFER

4 Analog REC OUT Terminals

VCR-1, VCR-2, DAT/TAPE-1, TAPE-2 MONITOR

2 Analog Multi Source Terminals

L/R

#### Video Inputs

5 Composite Inputs

VDP/DVD, TV/DBS, VCR-1, VCR-2, V-AUX

5 S-Video Inputs

VDP/DVD, TV/DBS, VCR-1, VCR-2, V-AUX

#### Video Outputs

4 Composite Outputs

VCR-1, VCR-2, MONITOR, MULTI SOURCE

3 S-Video Outputs

VCR-1, VCR-2, MONITOR



# Specifications

## AVR-3600dts

<b>Power Amplifier Section</b>	Same quality amplifier for all 5-channel
Rated output	* THD figures are power amp stage values.
Front	140 W + 140 W (8 ohms, 20Hz - 20 kHz, THD 0.05%)
Center	140 W (8 ohms, 20Hz - 20 kHz, THD 0.05%)
Surround	140 W + 140 W (8 ohms, 20Hz - 20 kHz, THD 0.05%)
Dynamic Power	190 W x 2 ch (8 ohms) 310 W x 2 ch (4 ohms) 390 W x 2 ch (2 ohms)

<b>Preamplifier Section</b>	
Input sensitivity/ Impedance	PHONO (MM) : 2.5 mV/ 47 kohms CD, DVD, VDP, TV/ DBS, VCR-1, VCR-2, V.AUX, MD/ TAPE 1, TAPE 2, 8-ch EXT. : 200 mV/ 47 kohms
Output level/Load Impedance	FRONT L/R, CENTER, SURROUND L/R, EFFECT L/R, SUB WOOFER : 1.2 V/ 10 kohms VCR-1, VCR-2, MD/ TAPE 1, TAPE 2, MULTI SOURCE : 150mV/ 47 kohms
Digital Input	Optical VDP, VCR-1, VCR-2, V.AUX, TAPE1(Initial) Coaxial CD, DVD, TV/ DBS (Initial) RF VDP (Fixed)
Digital Output	REC OUT : TAPE-1 (Initial)
RIAA deviation	±1 dB (20 Hz - 20 kHz)
Signal-to-noise ratio (A-weighting)	105 dB (DIRECT)
Tone control	Treble : ± 10 dB at 10 kHz Bass : ± 10 dB at 100 Hz

<b>Video Section</b>	
Input Terminal	Composite DVD, VDP, TV/ DBS, V.AUX, VCR-1, VCR-2 : 1 Vp-p / 75 ohms
	S-Video DVD, VDP, TV/ DBS, V.AUX, VCR-1, VCR-2 : 1 Vp-p / 75 ohms
	Component Video DVD, TV
Output Terminal	Composite VCR-1, VCR-2, MONITOR-1, MONITOR-2 : 1 Vp-p / 75 ohms
	S-Video VCR-1, VCR-2, MONITOR-1, MONITOR-2 : 1 Vp-p / 75 ohms
	Component Video MONITOR (5 - 20 MHz, +0, -3 dB)

<b>FM Section</b>	
Tuning frequency range	87.5 - 107.9 MHz
Usable sensitivity	1.0 μV (11.2 dBf)
S/N 50 dB sensitivity (μV at 75 ohms)	Mono : 1.6 μV (15.3 dBf) Stereo : 23 μV (38.5 dBf)
Signal-to-noise ratio (A-weighting)	Mono : 80 dB, Stereo: 75 dB
Total harmonic distortion	Mono : 0.15%, Stereo: 0.3%

<b>AM Section</b>	
Tuning frequency range	520 - 1710 kHz
Usable sensitivity	18 μV
Signal-to-noise ratio	50 dB

<b>General</b>	
Power supply, Power consumption	AC 120 V, 60 Hz, 11 A
Dimensions, Weight	434 (W) x 181 (H) x 494 (D) mm, 21.5 kg, 47.4 lbs. 17.1"(W) x 7.1" (H) x 19.4" (D)